

PATENT COOPERATION TREATY

From the
INTERNATIONAL SEARCHING AUTHORITY

PCT

To:

see form PCT/ISA/220

WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

Date of mailing
(day/month/year) see form PCT/ISA/210 (second sheet)

Applicant's or agent's file reference
see form PCT/ISA/220

FOR FURTHER ACTION
See paragraph 2 below

International application No.
PCT/EP2004/007374

International filing date (day/month/year)
06.07.2004

Priority date (day/month/year)
11.07.2003

International Patent Classification (IPC) or both national classification and IPC
A61K35/78, A61P15/00

Applicant
INDENA S.P.A.

1. This opinion contains indications relating to the following items:

- ☒ Box No. I Basis of the opinion
- ☒ Box No. II Priority
- ☐ Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- ☐ Box No. IV Lack of unity of invention
- ☒ Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- ☐ Box No. VI Certain documents cited
- ☐ Box No. VII Certain defects in the international application
- ☐ Box No. VIII Certain observations on the international application

2. FURTHER ACTION

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

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**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/007374

Box No. I Basis of the opinion

1. With regard to the **language**, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
 - ☐ This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
 - a. type of material:
 - ☐ a sequence listing
 - ☐ table(s) related to the sequence listing
 - b. format of material:
 - ☐ in written format
 - ☐ in computer readable form
 - c. time of filing/furnishing:
 - ☐ contained in the international application as filed.
 - ☐ filed together with the international application in computer readable form.
 - ☐ furnished subsequently to this Authority for the purposes of search.
3. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE
INTERNATIONAL SEARCHING AUTHORITY**

International application No.
PCT/EP2004/007374

Box No. II Priority

1. ☒ The following document has not been furnished:

☒ copy of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(a)).

☐ translation of the earlier application whose priority has been claimed (Rule 43*bis*.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2. ☐ This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43*bis*.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

Box No. V Reasoned statement under Rule 43*bis*.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes: Claims	1-9
	No: Claims	
Inventive step (IS)	Yes: Claims	
	No: Claims	1-9
Industrial applicability (IA)	Yes: Claims	1-9
	No: Claims	

2. Citations and explanations

see separate sheet

Re Section V

1. Prior Art: Reference is made to the following documents cited in the International Search Report

D1: US 2003/008020 A1

D2: US 2002/034557 A1

D3: DREWES SIEGFRIED E ET AL: "Recent findings on natural products with erectile-dysfunction activity." PHYTOCHEMISTRY. APR 2003, vol. 62, no. 7, April 2003 (2003-04), pages 1019-1025, XP004410106 ISSN: 0031-9422

D4: EP-A-0 304 603

D5: EP-A-0 418 806

D6: EP-A-0 692 250

D7: US 2002/013280 A1

- 1.1 Document D1 discloses methods for treating sexual dysfunction in males and females by administering an agent which remodels neuronal or vascular pathways. Examples are vasodilators, activators of guanylyl cyclase such as forskolin or antagonists of phosphodiesterases. Topical administration is also described. Document D2 discloses topical compositions comprising mixtures of plant extracts (especially *Coleus forskohlii*) for the treatment of female sexual disorders. Document D3 discloses forskolin as an intracavernosal vasoactive agent in the management of vasculogenic impotence. Combination of agents resulted in synergistic response.
- 1.2 Document D4 discloses the use of ximenic acid, topically administered, to treat sexual impotence.
- 1.3 Document D5 discloses topical compositions of Ammi extracts comprising particularly visnadine, which is more active if percutaneously administered and which increases volume and blood flow-rate.
- 1.4 Document D6 discloses topical compositions comprising esculoside for treating peripheral vasculopathies related to impaired peripheral microcirculation.

- 1.5 Document D7 discloses icariin for treating sexual dysfunction and vasculogenic disease (enhancement of NO-cGMP pathway).

2. Novelty and Inventive Step (Article 33(2) and (3) PCT):

Claim 1 relates to a topical composition comprising a) esculoside or visnadine b) forskolin or plant extracts and c) esters of ximenynic acid, claim 9 relates to the use of said composition for treating sexual dysfunctions.

As none of the prior art documents disclose such a composition, the subject-matter of claims 1-9 seems to be novel.

However, as the invention of claims 1-9 consists merely in the combination of known compounds for the same use or of known compounds with known properties which are employed for the same use, respectively, the subject-matter of claims 1-9 does not seem to be inventive.